The Science of Drug Use:
Discussion Points

National Institute on Drug Abuse

The talking points below are written in plain language as a suggested way to communicate concepts of drug use and addiction to the intended adult or teen.

Why do people use drugs?

People use drugs for many reasons: they want to feel good, stop feeling bad, or perform better in school or at work, or they are curious because others are doing it and they want to fit in. The last reason is very common among teens.

Drugs excite the parts of the brain that make you feel good. But after you take a drug for a while, the feel-good parts of your brain get used to it. Then you need to take more of the drug to get the same good feeling. Soon, your brain and body must have the drug to just feel normal. You feel sick, awful, anxious, and irritable without the drug. You no longer have the good feelings that you had when you first used the drug. This is true if you use illegal drugs or if you misuse prescription drugs. Misuse includes taking a drug differently than how your doctor tells you to (taking more or crushing pills to "shoot up" or snort), taking someone else's prescription, or taking it just to get "high."

Drug use can start as a way to escape—but it can quickly make your life worse. Besides just not feeling well, different drugs can affect your brain and body in many different ways. Here are a few:

- *Alcohol:* You might have trouble making decisions, solving problems, remembering, and learning.
- *Marijuana:* You might forget things you just learned or have trouble focusing.
- Prescription pain relievers (opioids) or sedatives: Your heart rate and breathing may slow to dangerous levels, leading to coma or death.
- *Heroin:* Similar to opioid pain relievers, your heart rate and breathing may slow to dangerous levels, leading to coma or death.
- *Prescription stimulants (e.g., ADHD medications):* Your body temperature could get dangerously high, or you may have an irregular heartbeat, heart failure, or seizures.
- *Cocaine and methamphetamine:* You may get violent, have panic attacks or feel paranoid, or have a heart attack.
- *MDMA (Ecstasy or Molly):* You may feel confused for a long time after you take it and have problems with attention, memory, and sleep.
- *LSD:* Your emotions may change quickly, and you might not be able to recognize reality; frightening flashbacks can happen long after use.
- *Inhalants:* Your heart, kidneys, lungs, and brain may get damaged; even a healthy person can suffer heart failure and death within minutes of sniffing a lot of an inhalant.

Many drugs can also make driving a car unsafe. Marijuana can slow reaction time, make you judge time and distance poorly, and decrease coordination (how you move your body). Cocaine and methamphetamine can make a driver aggressive and reckless. Certain kinds of sedatives, called benzodiazepines, can make you dizzy or drowsy. These effects can lead to crashes that can cause injuries and even death.

What is drug addiction?

Drug addiction is when you can't stop taking the drug even if you want to. The urge is too strong to control, even if you know the drug is causing harm. The addiction can become more important than the need to eat or sleep. The urge to get and use the drug can fill every moment of your life. The addiction replaces all the things you used to enjoy. A person who is addicted might do almost anything—lie, steal, or hurt people—to keep taking the drug. This can lead to problems with your family and friends, and can even lead to arrest and jail. You can get addicted to illegal drugs as well as prescription drugs if you misuse them.

Drug addiction is a chronic disease. That means it stays with you for a long time, even if you stop using for a while. It doesn't go away like a cold. A person with an addiction can get treatment, but quitting for good can be very hard.

Can I just use willpower to stop using drugs?

At first, taking drugs is usually your choice. But as you continue to take them, using self-control can become harder and harder; this is the biggest sign of addiction. Brain studies of people with addiction show physical changes in parts of the brain that are very important for judgment, making decisions, learning and memory, and controlling behavior. Scientists have shown that when this happens to the brain, it changes how the brain works and it explains the harmful behaviors of addiction that are so hard to control.

If I stay off drugs for a while (e.g., in the criminal justice system or in residential treatment), will it be easy to remain drug-free?

Sometimes people quit their drug use for a while because they're away from triggers that remind them about their drug use. Away from home, drugs might be less available. Once you go back to normal life, you're likely to start using again unless you take action to avoid your triggers. This return to drug use is called a relapse. People recovering from addiction often have one or more relapses along the way if they don't take steps to avoid their triggers.

What is a trigger?

A trigger is anything that makes you feel the urge to go back to using drugs. It can be a place, person, thing, smell, feeling, picture, or memory that reminds you of taking a drug and getting high. A trigger can be something stressful that you want to escape from. It can even be something that makes you feel happy. People fighting addiction need to stay away from the people and triggers that can make them start using drugs again, just like people with breathing problems need to avoid smoke and dust.

People who have stayed sober for a while, either because they were in jail or in treatment, should know that they are at a high risk of overdose if they relapse and take the same amount of drug they used to. Their cravings may not have decreased, but their tolerance has, meaning their body can't handle high doses of the drug anymore. Without immediate treatment, overdose often leads to death. This is why you often hear about people dying of an overdose soon after leaving rehab.

What makes people more likely to get addicted to drugs?

- Trouble at home. If your home is an unhappy place, or was when you were growing up, you might be more likely to have a drug problem. When kids aren't well cared for, or there are lots of fights, or a parent is using drugs, the chance of addiction goes up.

- Mental health problems. People who have untreated mental health problems, such as depression or anxiety, or untreated attention deficit/hyperactivity disorder (ADHD) are more likely to become addicted. They might use drugs to try to feel better.
- Trouble in school, trouble at work, trouble with making friends. Failures at school or work, or trouble getting along with people, can make life hard. You might use drugs to get your mind off these problems.
- Hanging around other people who use drugs. Friends or family members who use drugs might get you into trouble with drugs as well.
- Starting drug use when you're young. When kids use drugs, it affects how their bodies and brains finish growing. Using drugs when you're young increases your chances of becoming addicted when you're an adult.
- Your biology. Everyone's bodies react to drugs differently. Some people like the feeling the first time they try a drug and want more. Other people hate how it feels and never try it again. Scientists don't have a test yet that will predict how each person will react.

Can drug addiction be treated?

Yes. People who get treatment and stick with it can stop using drugs. They can change their lives so they don't go back to taking drugs. But they have to try hard and follow the treatment program for a long time. Recovery from addiction means you have to stop using drugs AND learn new ways of thinking, feeling, and dealing with problems. It's best not to use in the first place. If you do get addicted, it'll be a long and difficult road.

After you've stopped using the drug, you still have a lot to do:

- You have to relearn how to live without using drugs.
- You have to work on the problems your drug use caused with your family, your job, your friends, and your money.
- You have to stay away from people you used drugs with, and places where you used.
- You have to learn what makes you want to take drugs again (your triggers), so you can avoid or work on those things.
- You may also need treatment for problems that led to your drug use, such as depression, anxiety, or other mental health problems.

Where to Get Help

These step-by-step guides will walk you through the steps of identifying if you have a problem with drugs and how to ask for help:

- What to Do If You Have a Problem with Drugs: For Teens and Young Adults (drugabuse.gov/related-topics/treatment/what-to-do-if-you-have-problem-drugs-teens-young-adults)
- What to Do If You Have a Problem with Drugs: For Adults (drugabuse.gov/related-topics/treatment/what-to-do-if-you-have-problem-drugs-adults)

The NIDA also provides step-by-step guides for parents, friends, and family who think someone has a problem with drugs:

- What to Do If Your Teen or Young Adult Has a Problem with Drugs (drugabuse.gov/related-topics/treatment/what-to-do-if-your-teen-or-young-adult-has-problem-drugs)
- What to Do If Your Adult Friend or Loved One Has a Problem with Drugs (drugabuse.gov/related-topics/treatment/what-to-do-if-your-adult-friend-or-loved-one-has-problem-drugs)

You can call **1-800-662-HELP (4357)** (toll-free) or go to findtreatment.samhsa.gov at any time to find drug treatment centers near you. If a person is in medical crisis, someone should drive them to the emergency room or call **911.** This is particularly true for someone overdosing on heroin or a prescription opioid medication.
Although not a substitute for treatment, these groups can be a great source of support:
Alcoholics Anonymous (AA) — for people with alcohol addiction, aa.org
Narcotics Anonymous (NA) — for people with other drug addictions, na.org

For support groups for family members and friends of people with drug problems:
Al-Anon and Alateen
1-888-4AL-ANON (1-888-425-2666), Monday–Friday, 8 a.m.–6 p.m. Eastern Time,
al-anon.org/, al-anon.org/for-alateen

For information and help to quit smoking:

In your state: **1-800-QUITNOW (1-800-784-8669),** smokefree.gov
Call from anywhere: **1-877-44U-QUIT (1-877-448-7848),** cancer.gov/cancertopics/tobacco/smoking

For help if you or a loved one feels sad, hopeless, or suicidal:

National Suicide Prevention Lifeline
1-800-273-TALK (1-800-273-8255), suicidepreventionlifeline.org

For easy-to-read information about drugs, addiction, and treatment: easyread.drugabuse.gov/

Prevention Resources

For adults needing information for their own children or for children they care about:

- Help Children and Teens Stay Drug-Free (easyread.drugabuse.gov/content/help-children-and-teens-stay-drug-free)
- *Family Checkup: Positive Parenting Prevents Drug Abuse* (drugabuse.gov/family-checkup)
- Underage Drinking Prevention: Talk. They Hear You (underagedrinking.samhsa.gov)
- Partnership for Drug-Free Kids (drugfree.org)
- Alcohol Use: Conversation Starters (healthfinder.gov/prevention/ViewTool.aspx?toolId=37)

For kids:

- NIDA for Teens (teens.drugabuse.gov)
- Above the Influence (abovetheinfluence.com)

- The Cool Spot (thecoolspot.gov/index.asp)